

Versioned Archive and Review of Biotic
Interactions and Taxon Names Found within
globalbioticinteractions/bthk-database
hash://md5/69c54a4b6b6c46b675411f16a760ed66

by Nomer, Elton and Preston, three naive review bots
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<https://globalbioticinteractions.org/contribute>
<https://github.com/globalbioticinteractions/bthk-database/issues>

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Abstract

Life on Earth is sustained by complex interactions between organisms and their environment. These biotic interactions can be captured in datasets and published digitally. We present a review and archiving process for such an openly accessible digital interactions dataset of known origin and discuss its outcome. The dataset under review, named globalbioticinteractions/bthk-database, has fingerprint hash://md5/69c54a4b6b6c46b675411f16a760ed66, is 7.26MiB in size and contains 1,786 interactions with 1 unique type of association (e.g., createsHabitatFor) between 45 primary taxa (e.g., *Quercus petraea*) and 24 associated taxa (e.g., *Plecotus auritus*). This report includes detailed summaries of interaction data, a taxonomic review from multiple catalogs, and an archived version of the dataset from which the reviews are derived.

Contents

Introduction	2
Data Review and Archive	2
Methods	2
Results	4
Files	4
Archived Dataset	14

Biotic Interactions	14
Interaction Networks	18
Geospatial Distribution	18
Taxonomic Alignment	20
Additional Reviews	22
GloBI Review Badge	23
GloBI Index Badge	23
Discussion	24
Acknowledgements	24
Author contributions	25
References	25

Introduction

Data Review and Archive

Data review and archiving can be a time-consuming process, especially when done manually. This review report aims to help facilitate both activities. It automates the archiving of datasets, including Darwin Core archives, and is a citable backup of a version of the dataset. Additionally, an automatic review of species interaction claims made in the dataset is generated and registered with Global Biotic Interactions (J. H. Poelen, Simons, and Mungall 2014).

This review includes summary statistics about, and observations about, the dataset under review :

Bat Tree Habitat Key. 2021. Accessed in June 2021 at:
http://battreehabitatkey.co.uk/?page_id=18 <https://github.com/globalbioticinteractions/bthk-database/archive/f36178cc019853b74f617d0f79574b05148d1f96.zip>
2026-01-24T00:06:51.827Z hash://md5/69c54a4b6b6c46b675411f16a760ed66

For additional metadata related to this dataset, please visit <https://github.com/globalbioticinteractions/bthk-database> and inspect associated metadata files including, but not limited to, *README.md*, *eml.xml*, and/or *globi.json*.

Methods

The review is performed through programmatic scripts that leverage tools like Preston (Elliott et al. 2025), Elton (Kuhn, Poelen, and Leinweber 2025), Nomer (Salim and Poelen 2025), globinizer (J. Poelen, Seltmann, and Mietchen 2024) combined with third-party tools like grep, mlr, tail and head.

Table 1: Tools used in this review process

tool name	version
preston	0.11.1
elton	0.16.1
nomer	0.5.17
globinizer	0.4.0
mlr	6.0.0
jq	1.6
yq	4.25.3
pandoc	3.1.6.1
duckdb	1.3.1
mapserver	7.6.4

The review process can be described in the form of the script below ¹.

```
# get versioned copy of the dataset (size approx. 7.26MiB) under review
elton pull globalbioticinteractions/bthk-database

# generate review notes
elton review globalbioticinteractions/bthk-database\
> review.tsv

# export indexed interaction records
elton interactions globalbioticinteractions/bthk-database\
> interactions.tsv

# export names and align them with the Catalogue of Life using Nomer
elton names globalbioticinteractions/bthk-database\
| nomer append col\
> name-alignment.tsv
```

or visually, in a process diagram.

You can find a copy of the full review script at [check-data.sh](#). See also [GitHub](#) and [Codeberg](#).

¹Note that you have to first get the data (e.g., via `elton pull globalbioticinteractions/bthk-database`) before being able to generate reviews (e.g., `elton review globalbioticinteractions/bthk-database`), extract interaction claims (e.g., `elton interactions globalbioticinteractions/bthk-database`), or list taxonomic names (e.g., `elton names globalbioticinteractions/bthk-database`)

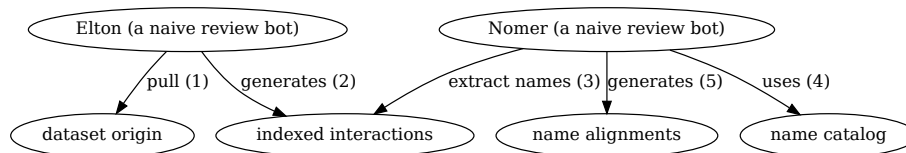


Figure 1: Review Process Overview

Results

In the following sections, the results of the review are summarized ². Then, links to the detailed review reports are provided.

Files

The following files are produced in this review:

filename	description
biblio.bib	list of bibliographic reference of this review
check-dataset.sh	data review workflow/process as expressed in a bash script
data.zip	a versioned archive of the data under review
HEAD	the digital signature of the data under review
index.docx	review in MS Word format
index.html	review in HTML format
index.md	review in Pandoc markdown format
index.pdf	review in PDF format
indexed-citations.csv.gz	list of distinct reference citations for reviewed species interaction claims in gzipped comma-separated values file format
indexed-citations.html.gz	list of distinct reference citations for reviewed species interactions claims in gzipped html file format
indexed-citations.tsv.gz	list of distinct reference citations for reviewed species interaction claims in gzipped tab-separated values format

²Disclaimer: The results in this review should be considered friendly, yet naive, notes from an unsophisticated robot. Please keep that in mind when considering the review results.

filename	description
indexed-interactions-col-family-col-family.svg	network diagram showing the taxon family to taxon family interaction claims in the dataset under review as interpreted by the Catalogue of Life via Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024)
indexed-interactions-col-kingdom-col-kingdom.svg	network diagram showing the taxon kingdom to taxon kingdom interaction claims in the dataset under review as interpreted by the Catalogue of Life via Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024)
indexed-interactions.csv.gz	species interaction claims indexed from the dataset under review in gzipped comma-separated values format
indexed-interactions.html.gz	species interaction claims indexed from the dataset under review in gzipped html format
indexed-interactions.tsv.gz	species interaction claims indexed from the dataset under review in gzipped tab-separated values format
indexed-interactions.parquet	species interaction claims indexed from the dataset under review in Apache Parquet format
indexed-interactions.png	species interaction claims indexed from the dataset under review plotted on a map
indexed-interactions.gpkg	species interaction claims indexed from the dataset under review in GeoPackage format
indexed-interactions-h3.gpkg	geospatially clustered h3 species interaction claims indexed from the dataset under review in GeoPackage format
indexed-interactions-sample.csv	list of species interaction claims indexed from the dataset under review in gzipped comma-separated values format
indexed-interactions-sample.html	first 500 species interaction claims indexed from the dataset under review in html format

filename	description
indexed-interactions-sample.tsv	first 500 species interaction claims indexed from the dataset under review in tab-separated values format
indexed-names.csv.gz	taxonomic names indexed from the dataset under review in gzipped comma-separated values format
indexed-names.html.gz	taxonomic names found in the dataset under review in gzipped html format
indexed-names.tsv.gz	taxonomic names found in the dataset under review in gzipped tab-separated values format
indexed-names.parquet	taxonomic names found in the dataset under review in Apache Parquet format
indexed-names-resolved-col.csv.gz	taxonomic names found in the dataset under review aligned with the Catalogue of Life as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped comma-separated values format
indexed-names-resolved-col.html.gz	taxonomic names found in the dataset under review aligned with the Catalogue of Life as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped html format
indexed-names-resolved-col.tsv.gz	taxonomic names found in the dataset under review aligned with the Catalogue of Life as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped tab-separated values format
indexed-names-resolved-col.parquet	taxonomic names found in the dataset under review aligned with the Catalogue of Life as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in Apache Parquet format

filename	description
indexed-names-resolved-discoverlife.csv.gz	taxonomic names found in the dataset under review aligned with Discover Life bee species checklist as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped comma-separated values format
indexed-names-resolved-discoverlife.html.gz	taxonomic names found in the dataset under review aligned with Discover Life bee species checklist as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped html format
indexed-names-resolved-discoverlife.tsv.gz	taxonomic names found in the dataset under review aligned with Discover Life bee species checklist as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped tab-separated values format
indexed-names-resolved-discoverlife.parquet	taxonomic names found in the dataset under review aligned with Discover Life bee species checklist as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in Apache Parquet format
indexed-names-resolved-gbif.csv.gz	taxonomic names found in the dataset under review aligned with GBIF Backbone Taxonomy as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped comma-separated values format
indexed-names-resolved-gbif.html.gz	taxonomic names found in the dataset under review aligned with GBIF Backbone Taxonomy as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped html format

filename	description
indexed-names-resolved-gbif.tsv.gz	taxonomic names found in the dataset under review aligned with GBIF Backbone Taxonomy as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped tab-separated values format
indexed-names-resolved-gbif.parquet	taxonomic names found in the dataset under review aligned with GBIF Backbone Taxonomy as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in Apache Parquet format
indexed-names-resolved-itis.csv.gz	taxonomic names found in the dataset under review aligned with Integrated Taxonomic Information System (ITIS) as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped comma-separated values format
indexed-names-resolved-itis.html.gz	taxonomic names found in the dataset under review aligned with Integrated Taxonomic Information System (ITIS) as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped html format
indexed-names-resolved-itis.tsv.gz	taxonomic names found in the dataset under review aligned with Integrated Taxonomic Information System (ITIS) as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped tab-separated values format
indexed-names-resolved-itis.parquet	taxonomic names found in the dataset under review aligned with Integrated Taxonomic Information System (ITIS) as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in Apache Parquet format

filename	description
indexed-names-resolved-mdd.csv.gz	taxonomic names found in the dataset under review aligned with the Mammal Diversity Database as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped comma-separated values format
indexed-names-resolved-mdd.html.gz	taxonomic names found in the dataset under review aligned with Mammal Diversity Database as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped html format
indexed-names-resolved-mdd.tsv.gz	taxonomic names found in the dataset under review aligned with Mammal Diversity Database as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped tab-separated values format
indexed-names-resolved-mdd.parquet	taxonomic names found in the dataset under review aligned with Mammal Diversity Database as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in Apache Parquet format
indexed-names-resolved-ncbi.csv.gz	taxonomic names found in the dataset under review aligned with the NCBI Taxonomy as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped comma-separated values format
indexed-names-resolved-ncbi.html.gz	taxonomic names found in the dataset under review aligned with the NCBI Taxonomy as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped html format

filename	description
indexed-names-resolved-ncbi.tsv.gz	taxonomic names found in the dataset under review aligned with the NCBI Taxonomy as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped tab-separated values format
indexed-names-resolved-ncbi.parquet	taxonomic names found in the dataset under review aligned with the NCBI Taxonomy as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in Apache Parquet format
indexed-names-resolved-pbdb.csv.gz	taxonomic names found in the dataset under review aligned with the Paleobiology Database as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped comma-separated values format
indexed-names-resolved-pbdb.html.gz	taxonomic names found in the dataset under review aligned with Paleobiology Database as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped html format
indexed-names-resolved-pbdb.tsv.gz	taxonomic names found in the dataset under review aligned with Paleobiology Database as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped tab-separated values format
indexed-names-resolved-pbdb.parquet	taxonomic names found in the dataset under review aligned with Paleobiology Database as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in Apache Parquet format

filename	description
indexed-names-resolved-tpt.csv.gz	taxonomic names found in the dataset under review aligned with the Terrestrial Parasite Tracker (TPT) Taxonomic Resource as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped comma-separated values format
indexed-names-resolved-tpt.html.gz	taxonomic names found in the dataset under review aligned with the Terrestrial Parasite Tracker (TPT) Taxonomic Resource as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped html format
indexed-names-resolved-tpt.tsv.gz	taxonomic names found in the dataset under review aligned with the Terrestrial Parasite Tracker (TPT) Taxonomic Resource as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped tab-separated values format
indexed-names-resolved-tpt.parquet	taxonomic names found in the dataset under review aligned with the Terrestrial Parasite Tracker (TPT) Taxonomic Resource as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in Apache Parquet format
indexed-names-resolved-wfo.csv.gz	taxonomic names found in the dataset under review aligned with the World of Flora Online as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped comma-separated values format
indexed-names-resolved-wfo.html.gz	taxonomic names found in the dataset under review aligned with the World of Flora Online as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped html format

filename	description
indexed-names-resolved-wfo.tsv.gz	taxonomic names found in the dataset under review aligned with the World of Flora Online as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped tab-separated values format
indexed-names-resolved-wfo.parquet	taxonomic names found in the dataset under review aligned with the World of Flora Online as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in Apache Parquet format
indexed-names-resolved-worms.csv.gz	taxonomic names found in the dataset under review aligned with the World Register of Marine Species (WoRMS) as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped comma-separated values format
indexed-names-resolved-worms.html.gz	taxonomic names found in the dataset under review aligned with the World Register of Marine Species (WoRMS) as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped html format
indexed-names-resolved-worms.tsv.gz	taxonomic names found in the dataset under review aligned with the World Register of Marine Species (WoRMS) as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped tab-separated values format
indexed-names-resolved-worms.parquet	taxonomic names found in the dataset under review aligned with the World Register of Marine Species (WoRMS) as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in Apache Parquet format
indexed-names-sample.csv	first 500 taxonomic names found in the dataset under review in comma-separated values format

filename	description
indexed-names-sample.html	first 500 taxonomic names found in the dataset under review in html format
indexed-names-sample.tsv	first 500 taxonomic names found in the dataset under review in tab-separated values format
interaction.svg	diagram summarizing the data model used to index species interaction claims
nanopub-sample.trig	first 500 species interaction claims as expressed in the nanopub format (Kuhn and Dumontier 2014)
nanopub.trig.gz	species interaction claims as expressed in the nanopub format (Kuhn and Dumontier 2014)
process.svg	diagram summarizing the data review processing workflow
prov.nq	origin of the dataset under review as expressed in rdf/nquads
review.csv.gz	review notes associated with the dataset under review in gzipped comma-separated values format
review.html.gz	review notes associated with the dataset under review in gzipped html format
review.tsv.gz	review notes associated with the dataset under review in gzipped tab-separated values format
review-sample.csv	first 500 review notes associated with the dataset under review in comma-separated values format
review-sample.html	first 500 review notes associated with the dataset under review in html format
review-sample.tsv	first 500 review notes associated with the dataset under review in tab-separated values format
review.svg	a review badge generated as part of the dataset review process
zenodo.json	metadata of this review expressed in Zenodo record metadata

Archived Dataset

Note that *data.zip* file in this archive contains the complete, unmodified archived dataset under review.

Biotic Interactions

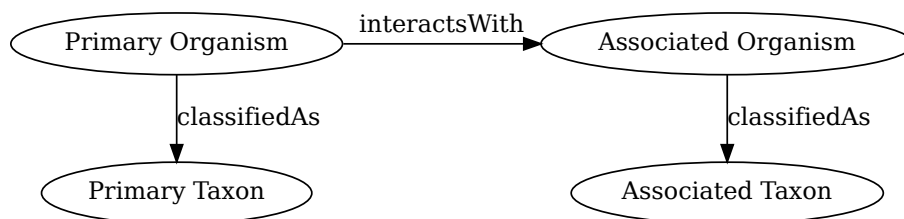


Figure 2: Biotic Interaction Data Model

In this review, biotic interactions (or biotic associations) are modeled as a primary (aka subject, source) organism interacting with an associate (aka object, target) organism. The dataset under review classified the primary/associate organisms with specific taxa. The primary and associate organisms The kind of interaction is documented as an interaction type.

The dataset under review, named `globalbioticinteractions/bthk-database`, has fingerprint hash://md5/69c54a4b6b6c46b675411f16a760ed66, is 7.26MiB in size and contains 1,786 interactions with 1 unique type of association (e.g., `create-sHabitatFor`) between 45 primary taxa (e.g., *Quercus petraea*) and 24 associated taxa (e.g., *Plecotus auritus*).

An exhaustive list of indexed interaction claims can be found in gzipped csv, tsv, geopackage and parquet archives. To facilitate discovery, a preview of claims available in the gzipped html page at `indexed-interactions.html.gz` are shown below.

The exhaustive list was used to create the following data summaries below.

Table 3: Sample of Indexed Interaction Claims

sourceTaxonName	interactionTypeName	targetTaxonName	referenceCitation
Quercus robur	createsHabitatFor	Myotis daubentonii	Bat Tree Habitat Key. 2021. Accessed in June 2021 at: http://battreehabitatkey.co.uk/?page_id=18 . Accessed at https://github.com/globalbiotici/interactions/bthk-database/archive/f36178cc019853b74f617d0f79574b05148d1f96.zip on 28 Jan 2026.
Quercus robur	createsHabitatFor	Myotis daubentonii	Bat Tree Habitat Key. 2021. Accessed in June 2021 at: http://battreehabitatkey.co.uk/?page_id=18 . Accessed at https://github.com/globalbiotici/interactions/bthk-database/archive/f36178cc019853b74f617d0f79574b05148d1f96.zip on 28 Jan 2026.
Quercus robur	createsHabitatFor	Pipistrellus sp.	Bat Tree Habitat Key. 2021. Accessed in June 2021 at: http://battreehabitatkey.co.uk/?page_id=18 . Accessed at https://github.com/globalbiotici/interactions/bthk-database/archive/f36178cc019853b74f617d0f79574b05148d1f96.zip on 28 Jan 2026.

sourceTaxonName	interactionTypeName	targetTaxonName	referenceCitation
Quercus robur	createsHabitatFor	Barbastella barbastellus	Bat Tree Habitat Key. 2021. Accessed in June 2021 at: http://battreehabitatkey.co.uk/?page_id=18 . Accessed at https://github.com/globalbiotici/interactions/bthk-database/archive/f36178cc019853b74f617d0f79574b05148d1f96.zip on 28 Jan 2026.

Table 4: Most Frequently Mentioned Interaction Types (up to 20 most frequent)

interactionTypeName	count
createsHabitatFor	1786

Table 5: Most Frequently Mentioned Primary Taxa (up to 20 most frequent)

sourceTaxonName	count
Quercus petraea	499
Quercus robur	312
Acer pseudoplatanus	223
Acer campestre	160
Taxus baccata	113
Fraxinus excelsior	86
Fagus sylvatica	84
Betula pubescens	47
Castanea sativa	37
Quercus sp.	32
Betula pendula	30
Alnus glutinosa	21
Carpinus betulus	14
Malus domestica	12
Pinus sylvestris	11

sourceTaxonName	count
Ulmus glabra	11
Aesculus hippocastanum	10
Salix fragilis	8
Sorbus aucuparia	7

Table 6: Most Frequently Mentioned Associate Taxa (up to 20 most frequent)

targetTaxonName	count
Plecotus auritus	562
Myotis nattereri	288
unknown	154
Pipistrellus pipistrellus	143
Barbastella barbastellus	129
Myotis daubentonii	128
Nyctalus noctula	111
Pipistrellus pygmaeus	104
Myotis bechsteinii	59
Nyctalus leisleri	39
Pipistrellus sp.	15
Pipistrellus nathusii	15
#VALUE!	14
Myotis brandtii	9
Rhinolophus hipposideros	4
Myotis daubentonii & Pipistrellus pygmaeus	3
Pipistrellus pipistrellus & Pipistrellus pygmaeus	2
Pipistrelle sp. (pygmaeus or nathusii)	1
Nyctalus noctula & Myotis sp.	1

Table 7: Most Frequent Interactions between Primary and Associate Taxa (up to 20 most frequent)

sourceTaxonName	interactionTypeName	targetTaxonName	count
Quercus petraea	createsHabitatFor	Plecotus auritus	226
Quercus robur	createsHabitatFor	Barbastella barbastellus	92
Acer pseudoplatanus	createsHabitatFor	Plecotus auritus	78
Quercus petraea	createsHabitatFor	unknown	77
Acer pseudoplatanus	createsHabitatFor	Myotis nattereri	69
Taxus baccata	createsHabitatFor	Plecotus auritus	67
Quercus petraea	createsHabitatFor	Myotis nattereri	53

sourceTaxonName	interactionTypeName	targetTaxonName	count
Acer campestre	createsHabitatFor	Plecotus auritus	45
Quercus petraea	createsHabitatFor	Nyctalus noctula	44
Acer pseudoplatanus	createsHabitatFor	Myotis daubentonii	40
Quercus robur	createsHabitatFor	Myotis nattereri	37
Acer campestre	createsHabitatFor	unknown	34
Quercus petraea	createsHabitatFor	Pipistrellus pipistrellus	34
Quercus robur	createsHabitatFor	Nyctalus noctula	33
Quercus robur	createsHabitatFor	Pipistrellus pipistrellus	32
Acer campestre	createsHabitatFor	Myotis nattereri	31
Quercus robur	createsHabitatFor	Myotis bechsteinii	30
Quercus petraea	createsHabitatFor	Barbastella barbastellus	27
Fagus sylvatica	createsHabitatFor	Plecotus auritus	27

Interaction Networks

The figures below provide a graph view on the dataset under review. The first shows a summary network on the kingdom level, and the second shows how interactions on the family level. It is important to note that both network graphs were first aligned taxonomically using the Catalogue of Life. Please refer to the original (or verbatim) taxonomic names for a more original view on the interaction data.



Figure 3: Interactions on taxonomic kingdom rank as interpreted by the Catalogue of Life download svg

You can download the indexed dataset under review at indexed-interactions.csv.gz. A tab-separated file can be found at indexed-interactions.tsv.gz

Geospatial Distribution

If geospatial information was extracted from the dataset under review, the map below will show their distribution.

Associated data can be found in the geopackage files at indexed-interactions.gpkg for point data and indexed-interactions-h3.gpkg for data clustered in geospatial h3 hexagonals.

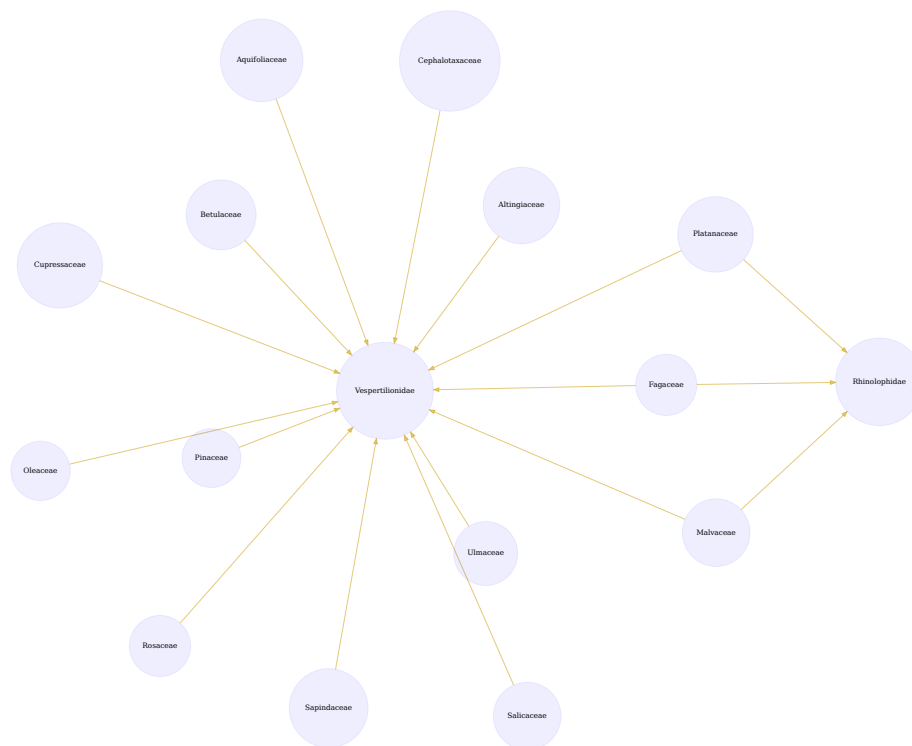


Figure 4: Interactions on the taxonomic family rank as interpreted by the Catalogue of Life. [download svg](#)

Hexagonal grid cells indicate that interactions claims are available for selected geospatial area: light yellow means relatively fewer claims, dark green relatively more claims.

Figure 5: Hexagonal grid cells indicate that interactions claims are available for selected geospatial area: light yellow means relatively fewer claims, dark green relatively more claims.

Learn more about the structure of this download at GloBI website, by opening a GitHub issue, or by sending an email.

Another way to discover the dataset under review is by searching for it on the GloBI website.

Taxonomic Alignment

As part of the review, all names are aligned against various name catalogs (e.g., col, ncbi, discoverlife, gbif, itis, wfo, mdd, tpt, pbdb, and worms). These alignments can help review name usage or aid in selecting of a suitable taxonomic name resource.

Table 8: Sample of Name Alignments

providedName	relationName	resolvedCatalogName	resolvedName
Acer campestre	HAS_ACCEPTED	col	Acer campestre
Acer platanoides	HAS_ACCEPTED	col	Acer platanoides
Acer	HAS_ACCEPTED	col	Acer
pseudoplatanus			pseudoplatanus
Aesculus	HAS_ACCEPTED	col	Aesculus
hippocastanum			hippocastanum

Table 9: Distribution of Taxonomic Ranks of Aligned Names by Catalog. Names that were not aligned with a catalog are counted as NAs. So, the total number of unaligned names for a catalog will be listed in their NA row.

resolvedCatalogName	resolvedRank	count
col	NA	10
col	genus	4
col	species	51
col	subspecies	3
col	variety	1
discoverlife	NA	67
gbif	NA	11
gbif	genus	4
gbif	species	51
gbif	subspecies	4
gbif	variety	2
itis	NA	11
itis	genus	4
itis	species	51
mdd	NA	66

resolvedCatalogName	resolvedRank	count
ncbi	NA	12
ncbi	genus	4
ncbi	species	51
pbdb	NA	45
pbdb	genus	4
pbdb	species	17
tpt	NA	52
tpt	genus	1
tpt	species	13
wfo	NA	25
wfo	genus	3
wfo	species	38
wfo	subspecies	1
worms	NA	46
worms	genus	2
worms	species	18

Table 10: Name relationship types per catalog. Name relationship type “NONE” means that a name was not recognized by the associated catalog. “SAME_AS” indicates either a “HAS_ACCEPTED_NAME” or “SYNONYM_OF” name relationship type. We recognize that “SYNONYM_OF” encompasses many types of nomenclatural synonymies (ICZN 1999) (e.g., junior synonym, senior synonyms).

resolvedCatalogName	relationName	count
col	HAS_ACCEPTED_NAME	61
col	NONE	10
col	SYNONYM_OF	13
discoverlife	NONE	69
gbif	HAS_ACCEPTED_NAME	104
gbif	SYNONYM_OF	35
gbif	NONE	11
itis	HAS_ACCEPTED_NAME	57
itis	SYNONYM_OF	2
itis	NONE	11
mdd	NONE	54
mdd	HAS_ACCEPTED_NAME	14
ncbi	SAME_AS	55
ncbi	SYNONYM_OF	2
ncbi	NONE	12
pbdb	NONE	45

resolvedCatalogName	relationName	count
pbdb	SYNONYM_OF	3
pbdb	HAS_ACCEPTED_NAME	20
tpt	NONE	53
tpt	HAS_ACCEPTED_NAME	15
wfo	HAS_ACCEPTED_NAME	42
wfo	NONE	26
wfo	HAS_UNCHECKED_NAME	10
wfo	SYNONYM_OF	9
worms	NONE	46
worms	HAS_ACCEPTED_NAME	22

Table 11: List of Available Name Alignment Reports

catalog name	alignment results
col	associated names alignments report in gzipped html, csv, and tsv)
ncbi	associated names alignments report in gzipped html, csv, and tsv)
discoverlife	associated names alignments report in gzipped html, csv, and tsv)
gbif	associated names alignments report in gzipped html, csv, and tsv)
itis	associated names alignments report in gzipped html, csv, and tsv)
wfo	associated names alignments report in gzipped html, csv, and tsv)
mdd	associated names alignments report in gzipped html, csv, and tsv)
tpt	associated names alignments report in gzipped html, csv, and tsv)
pbdb	associated names alignments report in gzipped html, csv, and tsv)
worms	associated names alignments report in gzipped html, csv, and tsv)

Additional Reviews

Elton, Nomer, and other tools may have difficulties interpreting existing species interaction datasets. Or, they may misbehave, or otherwise show unexpected behavior. As part of the review process, detailed review notes are kept that document possibly misbehaving, or confused, review bots. An sample of review notes associated with this review can be found below.

Table 12: First few lines in the review notes.

reviewDate	reviewCommentType	reviewComment
2026-01-28T02:37:02Z	note	target taxon name missing
2026-01-28T02:37:02Z	note	target taxon name missing
2026-01-28T02:37:02Z	note	target taxon name missing
2026-01-28T02:37:02Z	note	target taxon name missing

In addition, you can find the most frequently occurring notes in the table below.

Table 13: Most frequently occurring review notes, if any.

reviewComment	count
target taxon name missing	6077
source taxon name missing	489
found [122] column definitions, but only [121] values: assuming undefined values are empty.	478
found [122] column definitions, but only [2] values: assuming undefined values are empty.	478

For additional information on review notes, please have a look at the first 500 Review Notes in html format or the download full gzipped csv or tsv archives.

GloBI Review Badge

As part of the review, a review badge is generated. This review badge can be included in webpages to indicate the review status of the dataset under review.



Figure 6: Picture of a GloBI Review Badge ³

Note that if the badge is green, no review notes were generated. If the badge is yellow, the review bots may need some help with interpreting the species interaction data.

GloBI Index Badge

If the dataset under review has been registered with GloBI, and has been successfully indexed by GloBI, the GloBI Index Status Badge will turn green. This

³Up-to-date status of the GloBI Review Badge can be retrieved from the GloBI Review Depot

means that the dataset under review was indexed by GloBI and is available through GloBI services and derived data products.



Figure 7: Picture of a GloBI Index Badge ⁴

If you’d like to keep track of reviews or index status of the dataset under review, please visit GloBI’s dataset index ⁵ for badge examples.

Discussion

This review and archive provides a means of creating citable versions of datasets that change frequently. This may be useful for dataset managers, including natural history collection data managers, as a backup archive of a shared Darwin Core archive. It also serves as a means of creating a trackable citation for the dataset in an automated way, while also including some information about the contents of the dataset.

This review aims to provide a perspective on the dataset to aid in understanding of species interaction claims discovered. However, it is important to note that this review does *not* assess the quality of the dataset. Instead, it serves as an indication of the open-ness⁶ and FAIRness (Wilkinson et al. 2016; Trekels et al. 2023) of the dataset: to perform this review, the data was likely openly available, **F**indable, **A**ccessible, **I**nteroperable and **R**eusable. The current Open-FAIR assessment is qualitative, and a more quantitative approach can be implemented with specified measurement units.

This report also showcases the reuse of machine-actionable (meta)data, something highly recommended by the FAIR Data Principles (Wilkinson et al. 2016). Making (meta)data machine-actionable enables more precise processing by computers, enabling even naive review bots like Nomer and Elton to interpret the data effectively. This capability is crucial for not just automating the generation of reports, but also for facilitating seamless data exchanges, promoting interoperability.

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We thank the many humans that created us and those who created and maintained the data, software and other intellectual resources that were

⁴Up-to-date status of the GloBI Index Badge can be retrieved from GloBI’s API

⁵At time of writing (2026-01-28) the version of the GloBI dataset index was available at <https://globalbioticinteractions.org/datasets>

⁶According to <http://opendefinition.org/>: “Open data is data that can be freely used, reused and redistributed by anyone - subject only, at most, to the requirement to attribute and sharealike.”

used for producing this review. In addition, we are grateful for the natural resources providing the basis for these human and bot activities. Also, thanks to <https://github.com/zygoballus> for helping improve the layout of the review tables.

Author contributions

Nomer was responsible for name alignments. Elton carried out dataset extraction, and generated the review notes. Preston tracked, versioned, and packaged, the dataset under review.

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